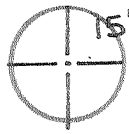




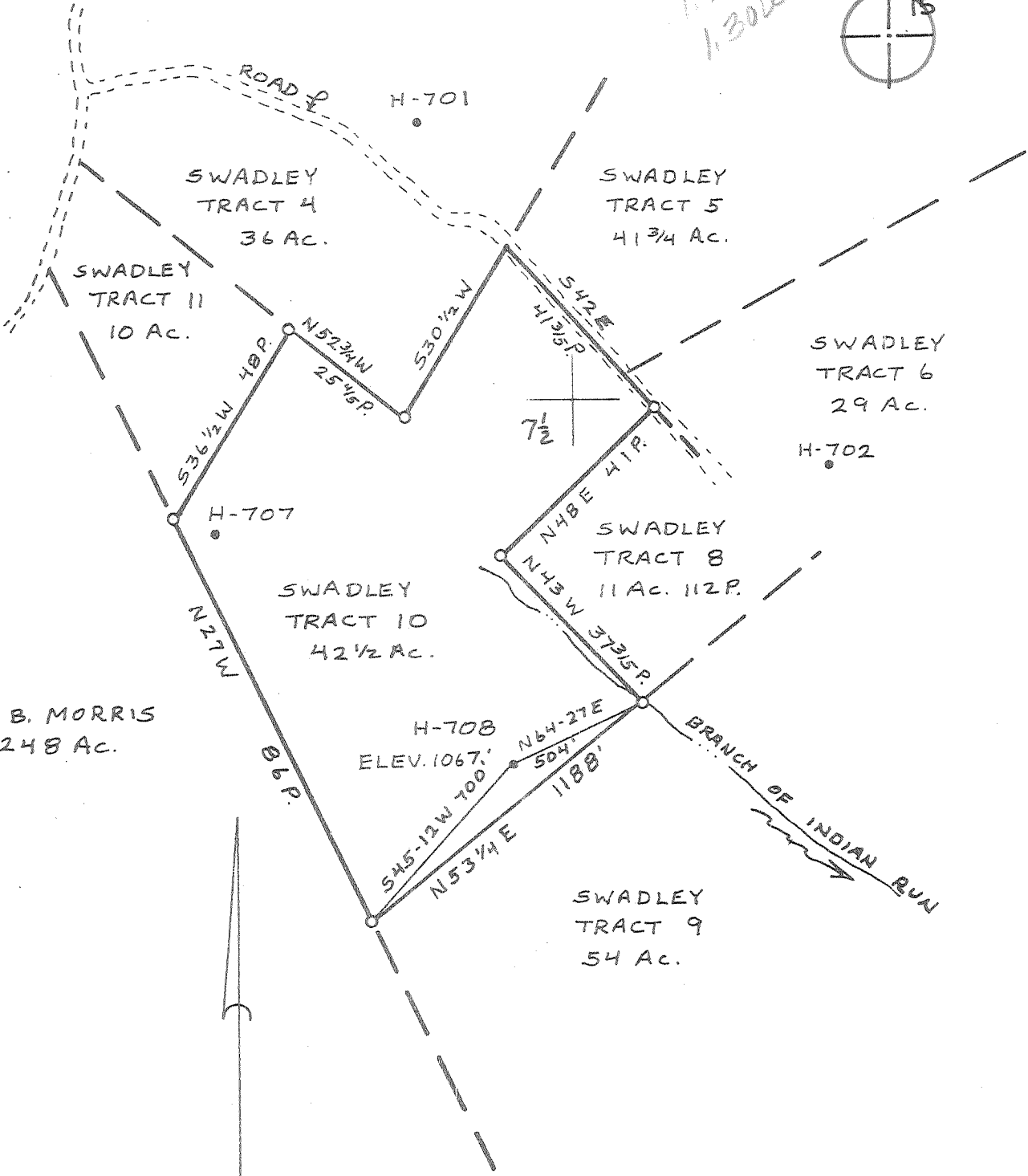
Latitude 39° 10'

7660 S  
6810 W

Longitude 81° 05'



1489  
130W



- Fracture
- Redrill
- New Location
- Drill Deeper
- Abandonment

*William R. Mossor*

Source of Elevation ROAD INTERSECTION ELEV. 1182'

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Minimum accuracy, one part in 200

Company GLENN L. HAUGHT & SONS  
 Address SMITHVILLE, W.VA. 26178  
 Farm SWADLEY, WARREN R. HAUGHT  
 Tract 10 Acres 42 1/2 Lease No. \_\_\_\_\_  
 Well (Farm) No. H-708 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1067'  
 Quadrangle HARRISVILLE, W.VA. 7 1/2 QUAD.  
 County RITCHIE District MURPHY  
 Surveyor or Engineer WILLIAM R. MOSSOR, L.L.S.  
 Surveyor's or Engineer's Registration No. 551  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 21 DEC 1978 Scale 1" = 30 P.

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. WAS: 47-085-4193  
NEW: 47-085-4429

+ Denotes location of well on United States Topographic Maps, scale 1 to 25,000 latitude and longitude lines being represented by border lines as shown.  
 -- Denotes one inch spaces on border line of original tracing.

JAN 25 1979

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION

WAS-4193

WELL OPERATOR'S REPORT 2-7  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal   
(If "Gas", Production  / Underground storage  / Deep  / Shallow   
LOCATION: Elevation: 1067' Watershed: Branch of Indian Run  
District: Murphy County: Ritchie Quadrangle: Harrisville, WV 7 1/2'  
Swadley H-708  
WELL OPERATOR Glenn L. Haught & Sons DESIGNATED AGENT Warren R. Haught  
Address Smithville, WV 26178 Address Smithville, WV 26178

PERMITTED WORK: Drill  / Convert  / Drill deeper  / Redrill  / Fracture or stimulate   
Plug off old formation  / Perforate new formation  /  
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON October 30, 19 79, OIL & GAS INSPECTOR FOR THIS WORK:  
Name Kenneth Paul Goodnight  
Address Smithville, WV 26178  
Phone: 477-3660

GEOLOGICAL TARGET FORMATION: Big Injun Depth 2064 to 2145 feet  
Depth of completed well, 2160 feet Rotary  / Cable Tools   
Water strata depth: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.  
Coal seam depths: None Is coal being mined in the area? No  
Work was commenced November 13, 19 79, and completed November 16, 19 79

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	REMARKS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Wells
Fresh water	8 5/8	K-55	20#	X		203	203	75 sac s	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5#	X			2160'	105'	Leaves set
Tubing									
Liners									Perforations:
									Top Bottom
							JAN 11 1980		2093 2138

OIL & GAS DIVISION  
DEPT. OF MINES  
OPEN FLOW DATA  
Producing formation Big Injun Pay zone depth 2064 to 2145 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, 315 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 8 hours  
Static rock pressure, 660 psig (surface measurement) after 12 hours shut in  
[If applicable due to multiple completion--]  
Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, \_\_\_\_\_ hours  
Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

(Reverse)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Hydrafraced by Halliburton 11-28-79 -- 1000 Gal. Acid -- 800 Bbls. Water  
32,000 Lbs. 20/40 Mesh Sand -- 12,000 Lbs. 80/100 Mesh Sand.

Perforations 11--2113--2138  
10--2093--2102

WELL LOG

FORMATION	Color	Hard or Soft	27 Top Feet	Bottom Feet	Remarks Including indication of all fress and salt water, coal, oil and ga
Slate			208	235	
Red Rock			235	255	
Slate			255	356	
Red Rock			356	372	
Slate			372	404	
Red Rock			404	420	
Slate			420	491	
Red Rock			491	542	
Slate			542	568	
Red Rock			568	595	
Slate			595	704	
Red Rock			704	758	
Slate			758	896	
Sand			896	899	
Red Rock			899	915	
Slate			915	944	
Red Rock			944	957	
Slate			957	1065	
Sand			1065	1084	
Red Rock			1084	1120	
Salte			1120	1147	
Red Rock			1147	1165	
Sand			1165	1213	
Slate			1213	1322	
Sand			1322	1425	
Slate			1425	1475	
Sand			1475	1560	
Slate			1560	1615	
Sand			1615	1700	
Slate			1700	1818	
Sand			1818	1878	
Slate			1878	1897	
Sand			1897	1908	
Slate			1908	1986	
S. Lime			1986	2064	
Sand BI			2064	2145	Gas show @2089
Slate			2145	2160	T. D.

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the

Glenn L. Haught & Sons  
Well Operator

By Warren R. Haught  
Its Partner



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED  
DEC 27 1978

Oil and Gas Division

OIL & GAS DIVISION  
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE December 26, 1978

Surface Owner Warren R. Haught

Company Glenn L. Haught & Sons

Address Smithville, W. Va 26178

Address Smithville, W. Va 26178

Mineral Owner Charley Swadley

Farm Swadley Acres 42.5

Address Harrisville, W. Va 26362

Location (waters) Branch of Indian Run

Coal Owner \_\_\_\_\_

Well No. H-708 Elevation 1067'

Address \_\_\_\_\_

District Murphy County Ritchie

Coal Operator NONE

Quadrangle Harrisville, W. Va 7.5'

Address \_\_\_\_\_

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22,  
of the W. Va. Code, the location is hereby approved  
for drilling. This permit shall expire if  
operations have not commenced by 4-28-79.

INSPECTOR  
TO BE NOTIFIED Kenneth Paul Goodnight  
ADDRESS Smithville, W. Va 26178  
PHONE 477-3660

*John T. [Signature]*

GENERAL DEPUTY DIRECTOR - Oil & Gas Division

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated July 12th 1976 by Charley and Anna Swadley made to Warren R. Haught and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_ in Ritchie County, Book 121 Page 425

XX NEW WELL \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE  
\_\_\_\_\_ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours,

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

(Sign Name) GLENN L. HAUGHT & SONS  
Well Operator

WEST VIRGINIA GEOLOGICAL AND  
ECONOMIC SURVEY  
P. O. BOX 879  
MORGANTOWN, WEST VIRGINIA 26505  
AC-304 - 292-6331

Address  
of  
Well Operator

BY: Warren R. Haught  
Street Partner  
Smithville, W. Va 26178  
City or Town

State \_\_\_\_\_

SECTION 3... If objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

47-085-4193

PERMIT NUMBER

THIS IS AN ESTIMATE ONLY  
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XX DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME Glenn L. Haught & Sons NAME Warren R. Haught  
 ADDRESS Smithville, W.Va 26178 ADDRESS Smithville, W.Va 26178  
 TELEPHONE 304-477-3333 TELEPHONE 304-477-3333  
 ESTIMATED DEPTH OF COMPLETED WELL: 2150' ROTARY XX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Big Injun  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS XX COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	200'	200'	75 Sacks
7			
5 1/2			
4 1/2		2150'	100 Sacks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 50 FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS NONE  
 IS COAL BEING MINED IN THE AREA? No BY WHOM? \_\_\_\_\_

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

\_\_\_\_\_  
For Coal Company

\_\_\_\_\_  
Official Title

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION

(Formerly: RIT-4193)

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas X /  
(If "Gas", Production X / Underground storage \_\_\_\_\_ Deep \_\_\_\_\_ Shallow X )  
LOCATION: Elevation: 1067' Watershed: Branch of Indian Run  
District: Murphy County: Ritchie Quadrangle: Harrisville, WV 7 1/2'

WELL OPERATOR Glenn L. Haught & Sons DESIGNATED AGENT Warren R. Haught  
Address Smithville, WV 26178 Address Smithville, WV 26178

OIL & GAS ROYALTY OWNER Charley Swadley COAL OPERATOR None  
Address Harrisville, WV 26362 Address \_\_\_\_\_

ACREAGE 42.5 COAL OWNER(S) WITH DECLARATION ON RECORD:  
SURFACE OWNER Warren R. Haught Name \_\_\_\_\_  
Address Smithville, WV 26178 Address \_\_\_\_\_  
ACREAGE 42.5 Name \_\_\_\_\_  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Kenneth Paul Goodnight  
Address Smithville, WV 26178  
phoen: 477-3660

*[Handwritten signatures and stamps]*  
OCT 29 1979  
OIL & GAS DIVISION  
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_\_\_/ lease X/ other contract \_\_\_\_\_/ dated July 12, 1976, to the undersigned well operator from Charley and Anna Swadley  
[If said deed, lease, or other contract has been recorded:]

Recorded on \_\_\_\_\_, 19\_\_\_\_, in the office of the Clerk of the County Commission of Ritchie County, West Virginia, in Lease Book 121 at page 425. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper \_\_\_\_\_/ Redrill \_\_\_\_\_/ Fracture or stimulate \_\_\_\_\_/  
Plug off old formation \_\_\_\_\_/ Perforate new formation \_\_\_\_\_/  
Other physical change in well (specify) \_\_\_\_\_

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25312  
TELEPHONE: (304) 348-3092

**BLANKET BOND**

Glenn L. Haught & Sons  
Well Operator  
By Warren R. Haught  
Its Partner

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Glenn L. Haught & Sons  
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Big Injun

Estimated depth of completed well, 2150 feet Rotary  Cable tools \_\_\_\_\_  
Approximate water strata depths: Fresh, 50 feet; salt, \_\_\_\_\_ feet.  
Approximate coal seam depths: None Is coal being mined in the area? Yes \_\_\_\_\_ No

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	8 5/8	K-55	20#	X		200'	200'	75 sacks	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5#	X			2150'	100 sacks	Depths set
T casing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-3, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-3a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 6-30-80.

*Robert H. [Signature]*  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator \_\_\_\_\_ / owner \_\_\_\_\_ / lessee \_\_\_\_\_ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: \_\_\_\_\_, 19\_\_\_\_

By \_\_\_\_\_  
Its \_\_\_\_\_